

## REMARKS

### I. Status of the Claims

Claims 14-40 are pending.

### II. Response to Restriction Requirement

The Examiner requires restriction under 35 U.S.C. §§ 121 and 372 as follows: Group I, claims 14, 17, 18, 21-23, 25, 27-29, and 33-34 (monocyclopentadienyl complexes of Formula I, catalyst systems, and processes for making the catalyst systems); Group II, claims 15, 16, 19, 20, and 24 (monocyclopentadienyl complexes of Formula II); Group III, claims 26 and 30-32 (catalyst systems from the Formula II complexes); Group IV, claims 35 and 36 (process for making cyclopentadienes); Group V, claims 37 and 38 (cyclopentadiene compositions); and Group VI, claims 39-40 (cyclopentenones).

Applicants elect to prosecute Group II, claims 15, 16, 19, 20, and 24, and respectfully traverse the requirement for reasons outlined below. Additionally, Applicants elect, as a single species from Group II, the complex of Example 1.5, which is 2-methyl-3-phenyl-1-(8-quinolinyl)cyclopentadienylchromium dichloride. The claims of elected Group II that read upon this species are 15, 19, 20, and 24.

Applicants respectfully disagree with the Examiner's assertion that the inventions of Group I and II do not form a single general inventive concept. In particular, the complexes of Group II are a subset of the complexes of Group I. The groups therefore bear a combination (II): subcombination (I) relationship. The Examiner says that the complexes are "structurally disparate," but no further explanation is given, and this is clearly incorrect because complexes of Group II fall squarely within the more general realm of Group I. Thus, Applicant believes that there is no proper basis for restriction between Groups I and II.

Additionally, Applicants also respectfully disagree with the decision to separate Groups II and III, which is inconsistent with the decision to examine similar claims together in Group I. If it made sense to examine together the complex, catalyst, and catalyst preparation claims of Group I, then it also makes

sense to examine together the complex and catalyst claims of Groups II and III, respectively. Thus, all of the claims from Groups I-III should be examined coincidentally.

Similar logic applies regarding Groups IV and V. There is no compelling reason to examine claims to the cyclopentadiene compositions (Group IV) separately from the claims drawn to a method for their preparation (Group V), so these groups should be combined.

Applicants respectfully ask the Examiner to reconsider and withdraw the restriction requirement, or in the alternative, to modify it by using the following proposed three-way restriction requirement: Group I, claims 14-34 (monocyclopentadienyl complexes, catalysts, and processes for their preparation); Group II, claims 35-38 (cyclopentadiene compositions and processes for their preparation); Group III, claims 39-40 (cyclopentadienones).

In view of the remarks above, the Examiner should reconsider and either modify or withdraw the restriction requirement. Applicants invite the Examiner to telephone their attorney at (610) 359-2276 if she believes that a discussion of the application might be helpful.

---

I hereby certify that this correspondence is being deposited with the United States Postal Service as first-class mail, with sufficient postage, in an envelope addressed to: Commissioner for Patents, P.O. Box. 1450, Alexandria, VA 22313-1450 on May 7, 2008.

Jonathan L. Schuchardt  
Name of person signing

Jonathan L. Schuchardt  
Signature

---

Respectfully submitted,  
Shahram Mihan et al.

By: Jonathan L. Schuchardt

Jonathan L. Schuchardt  
Reg. No. 34,428  
Attorney for Applicant(s)  
LyondellBasell Industries  
3801 West Chester Pike  
Newtown Square, PA 19073  
Phone (610) 359-2276  
**Customer Number 24114**  
May 7, 2008